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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PAVIGLIANITI, ANTHONY JOSEPH	

ART UNIT	PAPER NUMBER
1626	

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/781,442	WU ET AL.	
	Examiner	Art Unit	
	Anthony J. Paviglianiti	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *February 18, 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1 - 8* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/24/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1 – 8 are currently pending in the present application and are subject to the following restriction.

Information Disclosure Statement

The Information Disclosure Statement filed on May 24, 2004, is in compliance with 37 C.F.R. §1.97, and was considered by the examiner.

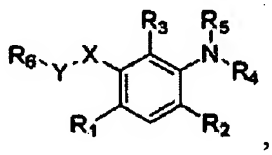
Oath/Declaration

The executed declarations which were filed on May 24, 2004 and November 19, 2004, respectively, do not recite the priority document (U.S. Provisional Application 60/448,791). The priority document is claimed on the unsigned declaration filed on February 18, 2004.

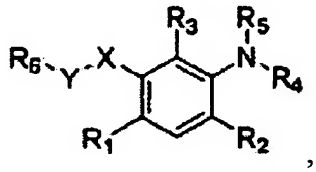
Election/Restrictions

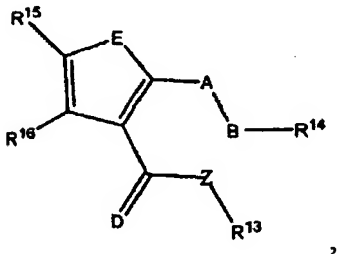
The Markush groups set forth in the claims include both independent and distinct inventions, and patentably distinct compounds (or species) within each invention. However, this application discloses and claims a plurality of patentably distinct inventions far too numerous to list individually. Moreover, each of these inventions contains a plurality of patentably distinct compounds, also far too numerous to list individually. **For these reasons provided below, restriction to one of the following inventions is required under 35 U.S.C. 121:**

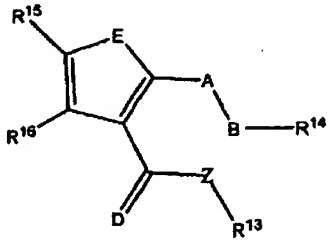
I. **Claims 1 – 3**, drawn to **compounds and compositions of Formula (I)**,



, as depicted in Claim 1, classified in class 564, subclass 89; class 544, subclasses 160, 166, 393, and 395; and in other classes and subclasses.

II. **Claims 4 – 5**, drawn to **methods of use** of compounds and compositions of Formula (I),  , to treat conditions associated with "Urotensin II imbalance," classified in class 514, subclasses 237.5, 237.8, 238.2, 255.03, 602, and other subclasses.

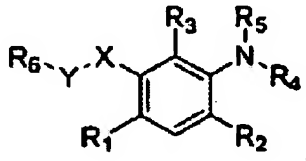
III. **Claims 6** and **8**, drawn to **compounds and compositions of Formula (II)**,  , as depicted in Claim 6, classified in class 548, subclasses 527, 567 and 569, and in other classes and subclasses.

IV. **Claim 7**, drawn to a **method of using** compounds of Formula (II),  , to treat conditions associated with "CCR-9 imbalance," classified in class 514, subclasses 422 and 428, and other subclasses.

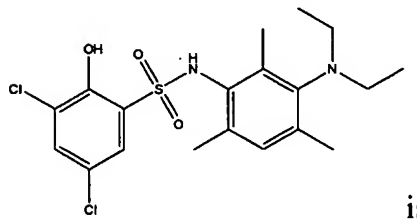
In addition to an election of one of the above Groups, restriction is further required under 35 U.S.C. §121 as follows:

In accordance with the decisions in In re Harnisch, 631 F.2d 716, 206 USPQ 300 (CCPA 1980) and Ex parte Hozumi, 3 USPQ2d 1059 (Bd. Pat. App & Int. 1984), restriction of a Markush group is proper where the compounds with the group either (1) do not share a common

utility, or (2) do not share a substantial structural feature disclosed as being essential to that utility. In addition, a Markush group may encompass a plurality of independent and distinct inventions where two or more members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the claim obvious under 35 U.S.C. §103 with respect to the other member(s).

Whether **Group I, II, III or IV** is elected, **an election of a single compound is further required**, including an exact definition of each substitution on the base molecule [Formula (I) or (II)], where a single member at each substituent group is selected. For example, if the base molecule of Formula (I), 

, has substituent group $\mathbf{R_6}$ which is recited to be "...aryl, heteroaryl and ZN$\mathbf{R_7R_8}$," then applicant must select a single substituent representing $\mathbf{R_6}$, such as "$\mathbf{R_6}$ is a 3,5-dichloro-2-hydroxy benzene group," as well as specific values representing every other variable (**X**, **Y**, $\mathbf{R_1}$, $\mathbf{R_2}$, $\mathbf{R_3}$, $\mathbf{R_4}$ and $\mathbf{R_5}$, etc.); for example, selecting **X** is NH; **Y** is SO_2; $\mathbf{R_1}$, $\mathbf{R_2}$ and $\mathbf{R_3}$ are each methyl; $\mathbf{R_4}$ and $\mathbf{R_5}$ are each ethyl (as in the unnumbered example in the list of "preferred compounds" at page 10, line 13), so that a single compound



is identified..

Also, if **Group II or IV** is elected, then **election of a specific method of use is required, *along with an elected compound of Formula (I) (or Formula (II) if Group IV is elected)***; for example, electing a method of treating:

A. Congestive heart failure;

B. Stroke;

C. Renal disease;

D. Male Erectile Dysfunction;

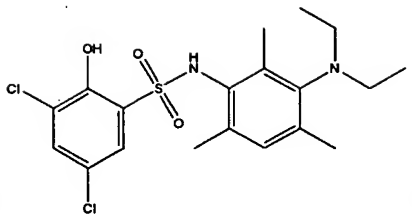
E. COPD;

F. Arthritis;

G. Alzheimer's disease;

H. Schizophrenia; or

I. Diabetes; etc.

using an elected compound of Formula (I), such as  (Specification at p. 10, line 13).

In the instant case, upon election of a single compound, the Office will review the claims and disclosure to determine the scope of the independent invention encompassing the elected compound (compounds which are so similar as to be within the same inventive concept and reduction to practice). The scope of an independent invention will encompass all compounds within the scope of the claim which fall into the same class and subclass as the elected compound, but may also include additional compounds which fall in related subclasses.

Examination will then proceed on the elected compound *and* the entire scope of the invention encompassing the elected compound as defined by common classification. A clear

statement of the examined invention, defined by those class(es) and subclass(es) will be set forth in the first action on the merits.

Note that the restriction requirement will not be made final until such time as Applicant is informed of the full scope of compounds along with (if appropriate) the process of using or making the compounds under investigation. This will be set forth by reference to specific class(es) and subclass(es) examined.

Should Applicant traverse on the ground that the compounds are not patentably distinct, Applicant should submit evidence or identify such evidence now of record showing the compounds to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. §103(a) of the other invention.

All compounds falling outside of the class(es) and subclass(es) of the selected compound and any other subclass encompassed by the election above will be directed to non-elected subject matter and will be withdrawn from consideration under 35 U.S.C. §121 and 37 C.F.R. §1.142(b). Applicant may reserve the right to file divisional applications on the remaining subject matter. The provisions of 35 U.S.C. §121 apply with regard to double patenting covering divisional applications.

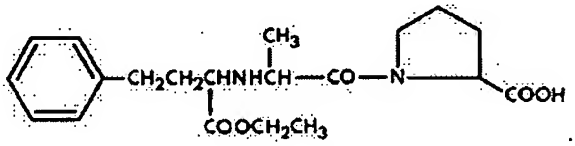
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. §1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 C.F.R. §1.48(b) and by the fee required under 37 C.F.R. §1.17(i).

If desired upon election of a single compound, applicants can review the claims and disclosure to determine the scope of the invention and can set forth a group of compounds which are so similar within the same inventive concept and reduction to practice. Markush claims must be provided with support in the disclosure for each member of the Markush group. See MPEP §608.01(p). Applicant should exercise caution in making a selection of a single member for each substituent group on the base molecule to be consistent with the written description.

Rationale Establishing Patentable Distinctiveness Within Each Group

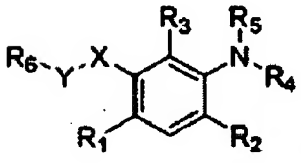
Each Group listed above is directed to or involves the use of compounds which are recognized in the art as being distinct from one another because of their diverse chemical structure, their different chemical properties, modes of action, different effects and reactive conditions (MPEP §806.04, MPEP §808.01). Additionally, the level of skill in the art is not such that one invention would be obvious over the other invention (Group); i.e., they are patentable over each other. Chemical structures which are similar are presumed to function similarly, whereas chemical structures that are not similar are not presumed to function similarly. The presumption even for similar chemical structures though is not irrebuttable, but may be overcome by scientific reasoning or evidence showing that the structure of the prior art would not have been expected to function as the structure of the claimed invention. Note that in accordance with the holding of Application of Papesch, 50 CCPA 1084, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and In re Lalu, 223 USPQ 1257 (Fed. Cir. 1984), chemical structures are patentably distinct where the structures are either not structurally similar, or the prior art fails to suggest a function of a claimed compound would have been expected from a similar structure.

The above Groups represent general areas wherein the inventions are independent and distinct, each from the other, because of the following reasons:

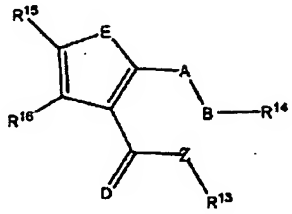
Group I and **Group II** are related as **product** and **method of use**. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially-different process of using that product. MPEP §806.05(h). Applying this rule to the instant case, the process for using the products as claimed – e.g., as treatment for congestive heart failure – can be practiced with a materially different product, such as the compound "enalapril," 

. See Cohn, J. "The Management of Chronic Heart Failure," N. Engl. J. Med., vol. 335(7), pages 490 – 498 (Aug. 1996) at p. 493, col. 2, line 47 (Table 2).

Group I and **Group III** are related as the **compounds** of Formula (I),



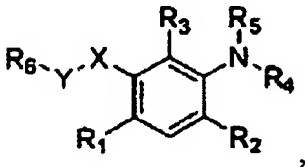
(Group I) and the **compounds** of Formula (II),



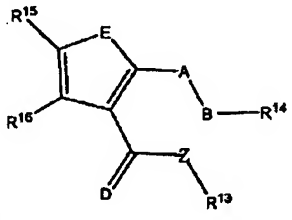
(Group III). While the variables may be selected in such a way that the compounds of the two inventions would overlap, the fixed portions of the each chemical structure represented by Formula (I) and Formula (II) do not share a common "core" structure. The two inventions are also disclosed as having different physiological activities: the compounds of **Group I** are disclosed as "Urotensin II receptor antagonists," while the compounds of **Group III** are

disclosed as "CCR-9 antagonists." The two inventions are therefore separate and distinct inventions and are properly restricted.

Group I and **Group IV** are related as the **compounds and compositions** of *Formula (I)*,

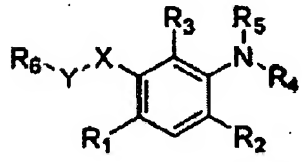


, and a **method of treating** conditions associated with CCR-9 imbalance using compounds of *Formula (II)*:

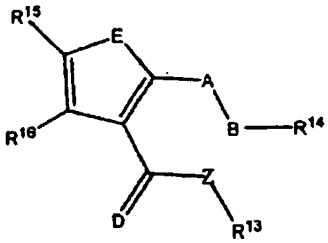


. The compounds of Formula (I) are disclosed in the Specification as having utility as antagonists for Urotensin II receptors (Specification at p. 4, lines 22 – 25), which is a materially-different "method of treating" than the methods of treating conditions associated with CCR-9 imbalance in the invention of **Group IV**. **Group I** and **Group IV** are therefore separate and distinct inventions for which restriction is appropriate.

Group II and **Group III** are related as a **method of using compounds of Formula (I)**

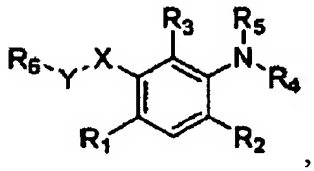


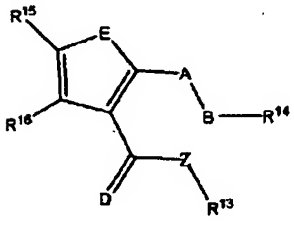
to treat "conditions associated with Urotensin II imbalance" (**Group II**) and the **compounds of Formula (II)**,



(**Group III**). The inventions can

be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially-different process of using that product. MPEP §806.05(h). Applying this rule to the instant case, the compounds of Formula (II) can be used for a materially different process of using the product – as antagonists for "conditions associated with CCR-9 imbalance," such as Crohn's disease and celiac disease. See Specification at p. 5, lines 19 – 22. Therefore the inventions of **Group II** and **Group III** are separate and distinct and restriction is appropriate.

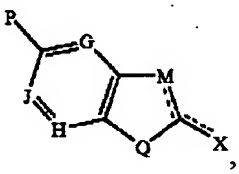
Group II and **Group IV** are related as **methods of using** compounds and compositions of Formula (I), 

, to treat conditions associated with "Urotensin II imbalance" (**Group II**) and a **method of using** compounds of Formula (II), 

, to treat conditions associated with "CCR-9 imbalance" (**Group IV**).

Group II and **Group IV** are separate and distinct inventions because they involve treatment of materially-different diseases, via different physiological pathways. According to the disclosure in the Specification, conditions associated with "Urotensin II imbalance" are as diverse as "...COPD...schizophrenia...Alzheimer's disease...diabetes" (Specification at p. 5, lines 8 – 13), while conditions associated with "CCR-9 imbalance" are "Crohn's disease, celiac disease and other forms of intestinal inflammation" (Specification at p. 5, lines 21 – 22). The diseases are

treatable with materially-different types of medications. **Group II** and **Group IV** are therefore separate and distinct inventions for which restriction is appropriate.

Group III and **Group IV** are related as product and method of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially-different process of using that product. MPEP §806.05(h). Applying this rule to the instant case, the process of using the products as claimed – e.g., for treatment of a condition associated with CCR-9 imbalance [such as Crohn's disease] – can be practiced with another, materially-different product, such as benzimidazolone-amine compounds of genus formula 

, which were disclosed as a modulators of chemokine receptors (including CCR9) for treatment of Crohn's disease. See **U.S. 2003/0064991 A1** at p. 3, lines 19 – 23, 48; and p. 19, line 3. **Group III** and **Group IV** are therefore separate and distinct inventions for which restriction is appropriate.

In addition, because of the plethora of classes and subclasses in each of the Groups, a serious burden is imposed upon the examiner to perform a complete search of the defined areas, for both independent and dependent inventions described above. Therefore, for the reasons given above, the restriction set forth is proper, and not to restrict would impose a serious burden in the examination of this application.

Advisory of Rejoinder

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found

allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

During telephone conversations with Martin L. Katz, Esq., on March 28 and 29, 2005, the above restriction requirements were discussed, but applicant did not elect by telephone.

Applicant is advised that the reply to this requirement to be complete must include an election of the Invention to be examined even though the requirement be traversed. 37 C.F.R. §1.143.

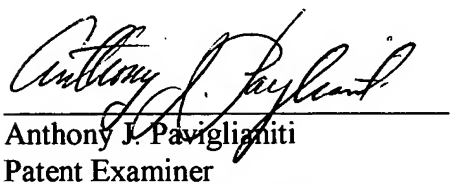
Applicant is further advised that a reply to this requirement must identify the specific compound that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Conclusion

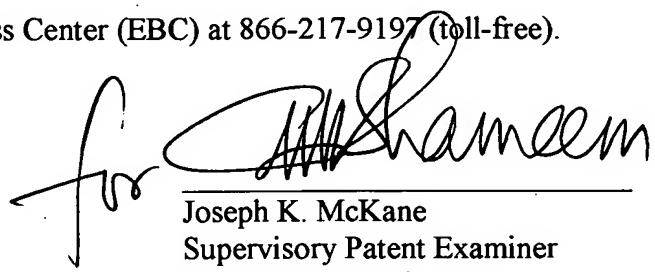
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Anthony J. Paviglianiti** whose telephone number is **(571) 272-3107**. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, may be reached at (571) 272-0699. **The FAX phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Please note that this is a new central FAX number for all official correspondence.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anthony J. Paviglianiti
Patent Examiner
TC-1600, Art Unit 1626



Joseph K. McKane
Supervisory Patent Examiner
TC-1600, Art Unit 1626